

ORDINANCE NO. _____

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF
SUNNYVALE AMENDING CHAPTER 16.16 OF THE
SUNNYVALE MUNICIPAL CODE TO ADOPT BY REFERENCE
THE "2001 CALIFORNIA BUILDING CODE" WITH CERTAIN
AMENDMENTS THERETO**

THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS
FOLLOWS:

SECTION 1. REPEAL. Ordinance 2597-99, and all prior ordinances
pertaining to this subject, are hereby repealed.

SECTION 2. CHAPTER 16.16 ADOPTED. Chapter 16.16 entitled
"Building Code" is hereby added to the Sunnyvale Municipal Code to read as set
forth in Exhibit "A," attached and incorporated.

SECTION 3. STATUTORY REFERENCES, INCLUSIONS OF
AMENDMENTS AND ADDITIONS. Whenever reference is made to any portion of
this ordinance, or of any other chapter or section of the Sunnyvale Municipal
Code, or of any other ordinance of the City of Sunnyvale, or of any law of the State
of California, the reference applies to all amendments and additions now or
hereafter made.

SECTION 4. INTERPRETATIONS. In interpreting and applying the
provisions of this ordinance, the requirements contained herein are declared to be
minimum requirements for the purposes set forth.

The provisions of this ordinance, insofar as they are substantially the same
as existing statutory provisions relating to the same subject matter, shall be
construed as restatements and continuations and not as new enactments.

This ordinance shall not nullify the more restrictive provisions of covenants,
agreements or other ordinances or laws, but shall prevail as to such provisions
which are less restrictive.

SECTION 5. CONSTITUTIONALITY, SEVERABILITY. If any section,
subsection, sentence, clause or phrase of this ordinance is for any reason held by
a court of competent jurisdiction to be unconstitutional or invalid, such decision
shall not affect the validity of the remaining portions of this ordinance. The City
Council of the City of Sunnyvale declares that it would have passed this ordinance
and every section, subsection, clause and phrase thereof, irrespective of the fact
that any one or more sections, subsections, sentences, clauses or phrases be
declared unconstitutional.

SECTION 6. FINDINGS. The deletions and amendments to the Uniform Building Code as set out in Exhibit "A" and which are the subject of this ordinance, are based upon the General and Specific findings by the City Council of the City of Sunnyvale, which findings are set forth in the accompanying resolution.

SECTION 7. EXEMPTION FROM CEQA. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment. The Council therefore directs that a Notice of Exemption be filed with the Santa Clara County Clerk in accordance with Section 14 of the Sunnyvale Guidelines for the implementation of CEQA adopted by Resolution No. 193-86.

SECTION 8. EFFECTIVE DATE. This ordinance shall be in full force and effect on November 1, 2002.

SECTION 9. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication once in The Sun, the official newspaper of the City of Sunnyvale, of a notice setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held _____ 2002, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on _____, 2002, by following vote:

AYES:

NOES:

ABSENT:

ATTEST:

APPROVED:

City Clerk
(SEAL)

Mayor

Chapter 16.16

BUILDING CODE

- 16.16.010. Title.**
- 16.16.020. Adoption by reference.**
- 16.16.030. Buildings exceeding seventy-five feet height.**
- 16.16.040. Fire extinguishing systems.**
- 16.16.050. Seismic Zone 4 near-source factor.**
- 16.16.060. Basic load combinations.**
- 16.16.070. Detailing requirements in Seismic Zones 3 and 4.**
- 16.16.080. Story drift calculated.**
- 16.16.090. Structural systems.**
- 16.16.100. Minimum slab thickness.**
- 16.16.110. Design methods.**
- 16.16.120. Seismic design provisions for structural steel.**
- 16.16.130. Seismic provisions for structural steel buildings.**
- 16.16.140. Stress design of wood buildings.**
- 16.16.150. Design specifications.**
- 16.16.160. Conventional light frame construction provisions--Bracing.**

16.16.010. Title.

This chapter shall be known and may be cited and referred to as the "Building Code for the City of Sunnyvale."

16.16.020. Adoption by reference.

The "2001 California Building Code," based on the 1997 Uniform Building Code and the 1997 Uniform Building Code Standards, promulgated by the International Conference of Building Officials, is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the building code of the city of Sunnyvale. Three copies are on file in the office of the city clerk.

16.16.030. Buildings exceeding seventy-five feet height.

Uniform Building Code Section 403 is hereby replaced by the applicable provisions of Chapter 16.54.

16.16.040. Fire extinguishing systems.

Except for the application of Sections 505.3 and 508 of the Uniform Building Code, the installation requirements for fire-extinguishing systems, Uniform Business Code Section 904, shall be governed by the applicable provisions of the Uniform Fire Code as adopted by Chapter 16.52, and by the applicable provisions of Chapter 16.54.

16.16.050. Basic load combinations.

Uniform Building Code Section 1612.2.1 is hereby amended to read:

"612.2.1 Basic load combinations. Where Load and Resistance Factor Design (Strength Design) is used, structures and all portions thereof shall resist the most critical effects from the following combinations of factored loads:

$$1.4D \quad (12-1)$$

$$1.2D + 1.6L + 0.5 (L_r \text{ or } S) \quad (12-2)$$

$$1.2D + 1.6 (L_r \text{ or } S) + (f_1 L \text{ or } 0.8 W) \quad (12-3)$$

$$1.2D + 1.3W + (f_1 L + 0.5 (L_r \text{ or } S)) \quad (12-4)$$

$$1.2D + 1.0E + (f_1 L + f_2 S) \quad (12-5)$$

$$0.9D \pm (1.0pE_h \text{ or } 1.3 W) \quad (12-6)$$

WHERE:

$f_1 = 1.0$ for floors in places of public assembly, for live loads in excess of 100 psf (4.9 kN/m²), and for garage live load.

$= 0.5$ for other live loads.

$f_2 = 0.7$ for roof configurations (such as saw tooth) that do not shed snow off the structure.

$= 0.2$ for other roof configurations.

EXCEPTIONS:

1. Factored load combinations for concrete per Section 1909.2 where load combinations do not include seismic forces.
2. Where other factored load combinations are specifically required by the provisions of this code.

16.60.060. Seismic Zone 4 near-source factor.

Uniform Building Code Section 1629.4.2 is hereby amended to read:

"Seismic Zone 4 near-source factor. In Seismic Zone 4, each site shall be assigned a near-source factor in accordance with Table 16-S and the Seismic Source Type set forth in Table 16-U. The value of N_a used in determining C_a need not exceed 1.1 for structures complying with all the following conditions:

1. The soil profile type is S_A , S_B , S_C or S_D .
2. $\rho = 1.0$.
3. Except in single-story structures, Group R, Division 3 and Group U, Division 1 Occupancies, moment frame systems designated as part of the lateral-force-resisting system shall be special moment-resisting frames.
4. The provisions in Sections 9.6a and 9.6b of AISC - Seismic Part 1 shall not apply, except for columns in one-story buildings or columns at the top story of multistory buildings.
5. None of the following structural irregularities is present: Type 1, 4 or 5 of Table 16-L, and Type 1 or 4 of Table 16-M."

16.16.070. Detailing requirements in Seismic Zones 3 and 4.

Uniform Building Code Section 1630.8.2.2 is deleted and replaced with the following:

"1630.8.2.2 Detailing Requirements in Seismic Zones 3 and 4. In Seismic Zones 3 and 4, elements supporting discontinuous systems shall meet the following detailing or member limitations:

1. Reinforced concrete or reinforced masonry elements designed primarily as axial-load members shall comply with Section 1921.4.4.5.

2. Reinforced concrete elements designed primarily as flexural members and supporting other than light-frame wood shear wall systems or light-frame steel and wood structural panel shear wall systems shall comply with Sections 1921.3.2 and 1921.3.3. Strength computations for portions of slabs designed as supporting elements shall include only those portions of the slab that comply with the requirements of these Sections.

3. Masonry elements designed primarily as axial-load-carrying members shall comply with Sections 2106.1.12.4, Item 1, and 2108.2.6.2.6.

4. Masonry elements designed primarily as flexural members shall comply with Section 2108.2.6.2.5.

5. Steel elements designed primarily as flexural members or trusses shall have bracing for both top and bottom beam flanges or chords at the location of the support of the discontinuous system and shall comply with the requirements of AISC-Seismic Part I, Section 9.4b.

6. Wood elements designed primarily as flexural members shall be provided with lateral bracing or solid blocking at each end of the element and at the connection location(s) of the discontinuous system."

16.16.080. Story drift calculated.

Uniform Building Code Sections 1630.10.2 and 1630.10.3 are amended to read:

"1630.10.2 Calculated. Calculated story drift using Δ_M shall not exceed 0.025 times the story height for structures having a fundamental period of less than 0.5 second. For structures having a fundamental period of 0.5 second or greater, the calculated story drift shall not exceed $0.020/T^{1/3}$ times the story height.

EXCEPTIONS: 1. These drift limits may be exceeded when it is demonstrated that greater drift can be tolerated by both structural elements and nonstructural elements that could affect life safety. The drift used in this assessment shall be based upon the Maximum Inelastic Response Displacement, Δ_M .

2. There shall be no drift limit in single-story steel-framed structures classified as Groups B, F and S Occupancies or Group H, Division 4 or 5 Occupancies. In Groups B, F and S Occupancies, the primary use shall be limited to storage, factories or workshops. Minor accessory uses shall be allowed in accordance with the provisions of Section 302. Structures on which this exception is used shall not have equipment attached to the structural frame or shall have such equipment detailed to accommodate the additional drift. Walls that are laterally supported by the steel frame shall be designed to accommodate the drift in accordance with Section 1633.2.4.

"1630.10.3 Limitations. The design lateral forces used to determine the

calculated drift may disregard the limitations of Formula (30-6) and (30-7) and may be based on the period determined from Formula (30-10) neglecting the 30 or 40 percent limitations of Section 1630.2.2, Item 2"

16.16.090. Structural systems.

Table 16-N of the Uniform Building Code is hereby amended to read:

"TABLE 16-N – STRUCTURAL SYSTEMS ¹

BASIC STRUCTURAL SYSTEM ²	LATERAL-FORCE-RESISTING SYSTEM DESCRIPTION	R	Ω	HEIGHT LIMIT FOR SEISMIC ZONES 3 AND 4 (feet)
				x 304.8 for mm
1. Bearing wall system	1. Light-framed walls with shear panels			
	a. Wood structural panel walls for structures three stories or less	5.5	2.8	65
	b. All other light-framed walls	4.5	2.8	65
	2. Shear walls			
	a. Concrete	4.5	2.8	160
	b. Masonry	4.5	2.8	160
	3. Light steel-framed bearing walls with tension-only bracing	2.8	2.2	65
	4. Braced frames where bracing carries gravity load	4.4	2.2	160
	a. Steel	2.8	2.2	- ³
	b. Concrete ³	2.8	2.2	65
	c. Heavy timber			
2. Building frame system	1. Steel eccentrically braced frame (EBF)	7.0	2.8	240
	2. Light-framed walls with shear panels.			
	a. Wood structural panel walls for structures three stories or less	6.5	2.8	65
	b. All other light-framed walls	5.0	2.8	65
	3. Shear walls			
	a. Concrete	5.5	2.8	240
	b. Masonry	5.5	2.8	160
	4. Ordinary braced frames			
	a. Steel ⁶	5.6	2.2	35 ⁶
	b. Concrete ³	5.6	2.2	-
	c. Heavy timber	5.6	2.2	65
	5. Special concentrically braced frames			
	a. Steel	6.4	2.2	240

3. Moment-resisting frame system	1. Special moment-resisting frame (SMRF)			
	a. Steel	8.5	2.8	N.L.
	b. Concrete ⁴	8.5	2.8	N.L.
	2. Masonry moment-resisting wall frame (MMRWF)	6.5	2.8	160
	3. Intermediate moment-resisting frame (IMRF)	4.5	2.8	35 ⁶
	a. Steel ⁶	5.5	2.8	- ³
	b. Concrete ⁵	3.5	2.8	- ⁶
	4. Ordinary moment-resisting frame (OMRF)	3.5	2.8	- ³
	a. Steel ⁶			
	b. Concrete ⁸	6.5	2.8	240
	5. Special truss moment frames of steel (STMF)			
4. Dual systems	1. Shear walls			
	a. Concrete with SMRF	8.5	2.8	N.L.
	b. Concrete with steel OMRF (Not Permitted)	-	-	-
	c. Concrete with concrete IMRF ⁵	6.5	2.8	- ⁵
	d. Masonry with SMRF	5.5	2.8	160
	e. Masonry with steel OMRF (Not Permitted)	-	-	-
	f. Masonry with concrete IMRF ³	4.2	2.8	- ³
	g. Masonry with masonry MMRWF	6.0	2.8	160
	2. Steel EBF	8.5	2.8	N.L.
	a. With steel SMRF	-	-	-
	b. With steel OMRF (Not Permitted)			
	3. Ordinary braced frames (Not Permitted)	7.5	2.8	N.L.
	4. Special concentrically braced frames	-	-	-
	a. Steel with steel SMRF			
	b. Steel with steel OMRF (Not Permitted)			
	5. Steel IMRF (Not permitted)			
5. Cantilevered column building systems	1. Cantilevered column elements	2.2	2.0	35 ⁷
6. Shear wall-frame interaction systems	1. Concrete ⁸	5.5	2.8	160
7. Undefined systems	See Section 1629.6.7 and 1629.9.2	-	-	-

N.L.– no limit

¹ See Section 1630.4 for combination of structural systems.

² Basic structural systems are defined in Section 1629.6.

³ Prohibited in Seismic Zones 3 and 4.

⁴ Includes precast concrete conforming to Section 1921.2.7.

⁵ Prohibited in Seismic Zones 3 and 4, except as permitted in Section 1634.2.

⁶ In Seismic Zone 4 **Steel IMRF, OMRF and Ordinary Braced Frames** are permitted as follows:

- a) **Steel IMRF** are permitted for structural systems 35 feet or less in height and the dead load of the roof, walls or floors not exceeding 35 psf each; or for single-story buildings 60 feet or less in height with the dead load of the roof or walls not exceeding 15 psf each where the moment joints of field connections are constructed of bolted end plates; or single-family dwellings using light frame construction with $R = 3.0$ and $\Omega_o = 2.2$.
- b) **Steel OMRF** are permitted for buildings 35 ft or less in height with the dead load of the roof, walls or floors not exceeding 15 psf each; or single-story buildings 60 ft or less in height with the dead load of the roof or walls not exceeding 15 psf each and where the moment joints of field connections are constructed of bolted end plates.

- c) **Steel Ordinary Braced Frames** are permitted for structural systems 35 ft or less in height; or penthouse structures; or single-story buildings 60 ft or less in height with the dead load of the roof or walls not exceeding 15 psf each.

⁷ Total height of the building including cantilevered columns.

⁸ Prohibited in Seismic Zones 2A, 2B, 3 and 4. See Section 1633.2.7."

16.16.100. Minimum slab thickness.

Uniform Building Code Section 1924 is hereby amended to read:

"Section 1924--Minimum Slab Thickness.

"The minimum thickness of concrete floor slabs supported directly on the ground shall not be less than 3 1/2". The slab shall be reinforced with not less than six inches by six inches ten-gauge wire mesh or an approved alternate installed at mid-height of the slab."

16.16.110. Design methods.

Uniform Building Code Section 2204 is hereby amended to read:

"Section 2204--Design Methods.

Design shall be by one of the following methods.

"2204.1 Load and Resistance Factor Design. Steel design based on load and resistance factor design method shall resist the factored load combinations of section 1612.2 in accordance with the applicable requirements of section 2205.

"2204.2 Allowable Stress Design. Steel design based on allowable stress design methods shall resist the factored load combinations of section 1612.3 in accordance with the applicable requirements of section 2205."

16.16.120. Seismic design provisions for structural steel.

Uniform Building Code Section 2205.3 is hereby amended to read:

"2205.3 Seismic Design Provisions for Structural Steel. Steel structural elements that resist seismic forces shall, in addition to the requirements of Section 2205.2 be designed in accordance with Division IV."

16.16.130. Seismic provisions for structural steel buildings.

(a) Division IV of Chapter 22 of the California Building Code is hereby amended to read:

**"Division IV — SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS
Based on Seismic Provisions for Structural Steel Buildings
of the American Institute of Steel Construction. Parts I and III,
dated April 15, 1997
and Supplement No. 2, dated November 10, 2000.**

"Section 2210--Adoption.

Except for the modifications as set forth in Sections 2211 and 2212 of this division and the requirements of the Building Code, the seismic design, fabrication, and erection of structural steel shall be in accordance with the *Seismic Provisions for Structural Steel Buildings*, April 15, 1997 published by the American

Institute of Steel Construction, 1 East Wacker Drive, Suite 3100, Chicago, IL 60601, as if set out at length herein. The adoption of *Seismic Provisions for Structural Steel Buildings* in this Division, hereinafter referred to as AISC-Seismic, shall include Parts I (LRFD), and III (ASD), and Supplement No. 2, dated November 10, 2000.

Where other codes, standards, or specifications are referred to in this specification, they are to be considered as only an indication of an acceptable method or material that can be used with the approval of the Building Official.

"Section 2211--Design methods.

When the load combinations from Section 1612.2 for LRFD are used, structural steel buildings shall be designed in accordance with Chapter 22 Division II (AISC-LRFD) and Part I of AISC-Seismic as modified by this Division.

When the load combinations from Section 1612.3 for ASD are used, structural steel buildings shall be designed in accordance with Chapter 22 Division III (AISC-ASD) and Part III of AISC-Seismic as modified by this Division.

"Section 2212--Amendments.

The AISC-Seismic adopted by this Division apply to the seismic design of structural steel members except as modified by this Section.

The following terms that appear in AISC-Seismic shall be taken as indicated in the 1997 Uniform Building Code.

AISC-Seismic

1997 Uniform Building Code

Seismic Force Resisting System

Lateral Force Resisting System

Design Earthquake

Design Basis Ground Motion

Load Combinations Eqs. (4-1) and (4-2)

Chapter 16 Eqs. (12-17) and (12-18) respectively

LRFD Specification Section Eqs. (A4-1) through (A4-6)

Chapter 16 Eqs. (12-1) through (12-6) respectively

$\zeta_o Q_E$

E_m

The text of Section 1 of Part 1 of the AISC Seismic Provisions is deleted and replaced with the following:

"1. Scope.

These provisions are intended for the design and construction of structural steel members and connections in the Seismic Force Resisting Systems in buildings for which the design forces resulting from earthquake motions have been determined on the basis of various levels of energy dissipation in the inelastic range of response. These provisions shall apply to buildings in Seismic Zone 2 with an importance factor I greater than one, in Seismic Zone 3 and 4 or when required by the Engineer of Record.

These provisions shall be applied in conjunction with, Chapter 22, Division II, hereinafter referred to as the LRFD Specification. All members and connections in the Lateral Force Resisting System shall have a design strength as provided in

the LRFD Specification to resist load combinations 12-1 through 12-6 (in Chapter 16) and shall meet the requirements in these provisions.

Part I includes a Glossary, which is specifically applicable to this Part, and Appendix S.

Part I, Section 4.1, first paragraph of the AISC Seismic Provisions, is amended to read:

"4.1 Loads and Load Combinations. The loads and load combinations shall be those in Section 1612.2 except as modified throughout these provisions.

E_h is the horizontal component of earthquake load E required in Chapter 16. Where required in these provisions, an amplified horizontal earthquake load $\Omega_o E_h$ shall be used in lieu of E_h as given in the load combinations below. The term Ω_o is the system overstrength factor as defined in chapter 16. The additional load combinations using amplified horizontal earthquake load are:

$$1.2 D + 0.5 L + 0.2 S + \Omega_o E_h \quad (4-1)$$

$$0.9 D + \Omega_o E_h \quad (4-2)$$

Exception: the load factor on L in load combination 4-1 shall be equal to 1.0 for garages, areas occupied as places of public assembly and all areas where the live load is greater than 100 psf.

Orthogonal earthquake effects shall be included in the analysis as required in section 1633.1, except that, when consideration of the load $\Omega_o E_h$ is required, orthogonal earthquake effects need not be considered.

(b) Division V of Chapter 22 of the California Building Code is hereby deleted.

16.16.140. Stress design of wood buildings.

Part 1 of Uniform Building Code Chapter 23, Division III is amended to read:

"Part I--Allowable Stress Design of Wood

This standard, with certain exceptions, is the ANSI/NFPA NDS-97 National Design Specification for Wood Construction of the American Forest and Paper Association, 1997 Edition, and the Supplement to the 1997 Edition, National Design Specification, adopted by reference.

The National Design Specification for Wood Construction, 1997 Edition, and supplement are available from the American Forest and Paper Association, 1111 19th Street, NW, Eighth Floor, Washington, DC, 20036."

16.16.150. Design specifications.

(a) Uniform Building Code Section 2316.1 is amended to read:

"2316.1 Adoption and Scope. The National Design Specification for Wood Construction, revised 1997 Edition (NDS), which is hereby adopted as a part of this code, shall apply to the design and construction of wood structures using visually graded lumber, mechanically graded lumber, structural glued laminated timber, and timber piles. National Design Specification Appendix Section F,

Design for Creep and Critical Deflection Applications, Appendix Section G, Effective Column Length, and Appendix Section J, Solution of Hankinson Formula are specifically adopted and made a part of this standard. The Supplement to the 1997 Edition National Design Specification, Tables 2A, 4A, 4B, 4C, 4D, 4E, 5A, 5B and 5C are specifically adopted and made a part of this standard.

Other codes, standards or specifications referred to in this standard are to be considered as only an indication of an acceptable method or material that can be used with the approval of the building official, except where such other codes, standards or specifications are specifically adopted by this code as primary standards."

(b) Uniform Building Code Section 2316.2 is amended as follows:

Item 12: Change section number 3.2.3.2 to 3.2.3.3.

Item 14: Deleted.

Item 26: Deleted.

Item 27: Deleted.

16.16.160. Conventional light frame construction provisions--Bracing.

Uniform Building Code Section 2320.11.3 is hereby amended to read:

"2320.11.3 Bracing. Braced wall lines shall consist of braced wall panels, which meet the requirements for location, type and amount of bracing specified in Table 23-IV-C-1 and are in line or offset from each other by not more than 4 feet (1219 mm). Braced wall panels shall start at not more than 8 feet (2438 mm) from each end of a braced wall line. All braced wall panels shall be clearly indicated on the plans. Construction of braced wall panels shall be by one of the following methods.

"1. Wood boards of 5/8-inch (16 mm) net minimum thickness applied diagonally on studs spaced not over 24 inches (610 mm) on center.

"2. Wood structural panel sheathing with a thickness not less than 5/16 inch (7.9 mm) for 16-inch (604 mm) and not less than 3/8 inch (9.5 mm) for 24-inch (610 mm) stud spacing in accordance with Tables 23-II-A-1 and 23-IV-D-1.

"3. Fiberboard sheathing 4-foot by 8-foot (1219 mm by 2438 mm) panels not less than 1/2 inch (13 mm) thick applied vertically on studs spaced not over 16 inches (406 mm) on center when installed in accordance with Section 2315.6 and Table 23-II-J.

"4. Particleboard wall sheathing panels where installed in accordance with Table 23-IV-D-2.

"5. Portland cement plaster on studs spaced 16 inches (406 mm) on center installed in accordance with Table 25-1. Limited to single story, R-3 and U-1 occupancies.

"6. Hardboard panel siding when installed in accordance with Section 2310.6 and Table 23-II-C.

For methods 1, 2, 3, 4, 5 and 6 each braced wall panel must be at least 48 inches (91219 mm) in length, covering three stud spaces where studs are 16 inches (406 mm) apart and covering two stud spaces where studs are spaced 24

inches (610 mm) apart.

"All vertical joints of panel sheathing shall occur over studs. Horizontal joints shall occur over blocking equal in size to the studding except where waived by the installation requirements for the specific sheathing materials.

"Braced wall panel sole plates shall be nailed to the floor framing and top plates shall be connected to the framing above in accordance with Table 23-11-B-1. Sills shall be bolted to the foundation or slab in accordance with Section 1806.6. Where joints are perpendicular to braced wall lines above, blocking shall be provided under and in line with the braced wall panels."